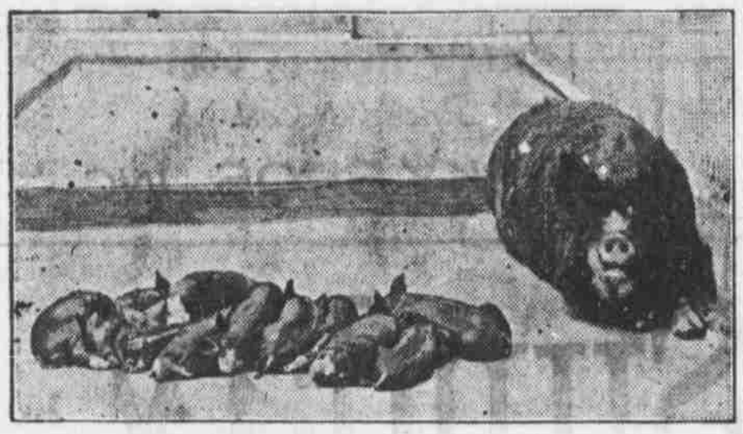
Helping the Meat and Milk Supply

(Special Information Service, United States Department of Agriculture.)

PORK IN WAR TIME BACKS PATRIOTISM



The Meat Line Helps to Strengthen the Battle Line.

SUPPLY OF FATS IS URGENT NEED

Requirements Can Be Met Most Quickly by Increasing Number of Hogs on Farms.

SWINE REQUIRE LESS LABOR

Animals Have No Rival in Putting Waste Material to Profitable Use —Department of Agriculture Offers Assistance.

Not only on the farms, but also in the small towns and suburbs where space is available, everyone who can should raise one or more pigs and thus furnish the pork supply for himself and perhaps for a soldier. Assistance in doing this may be obtained from publications of the United States department of agriculture which will be sent free on request.

Pork is the mainstay of the nation, the laboring man and the soldier, and the need for increasing the supply of fats is especially great. The need for meat and fats can be met more quickly by increasing the number of hogs than in any other manner. Hogs require less labor, equipment and capital, make greater gains for the quantity of food fed and give a quicker turnover of money than any kind of live stock except poultry. Furthermore, pork products have the advantage of being easily transported. No branch of live stock farming gives better results than the intelligent raising of well-bred swine.

Food From Garbage.

As a consumer of by-products the hog has no rival, which is an additional reason for pork raising now when the elimination of waste is an emphatic necessity. There is ample evidence that where table scraps form a part or all of the pig's diet the gains cost considerably less than the gains made by grain-fed animals.

There is no "best" breed of swine. Some breeds are superior to others in certain respects and one breed may be better adapted than another to certain local conditions. There are two distinctive types, the lard type and the bacon type. Swine of the lard type far outnumber those of the bacon type in the United States.

With the ingredients of a good ration constantly placed before them so that they may eat it well, hogs will make gains more rapidly and more economically than when fed by hand. The self-feeder is growing in popularity. It is simply a device by means of which a supply of grain or other feed is kept constantly available to the hogs in order that they may always satisfy their appetites with the proper kind and amount of feed.

"Soldiers of the Commissary."

By means of the boys' pig clubs of the department of agriculture thousands of boys are being instructed in hog raising, and by this means are helping to produce a very important food for our soldiers and sailors. Your county agent, club leader or director of extension work at your state agricultural college will tell you of the work in your own state and how to join a club. The department wants 200,000 boys to raise pigs—40,000 did it in pig clubs last year—but whether you are young or old, if you live in the country or the suburbs of a city, you can do it, too, and thereby become a "soldier of the commissary."

How to Get Information.

Farmers' bulletins covering practically every phase of the swine industry are available for free distribution and may be obtained by writing to the United States department of agriculture, Washington. The states also have published much excellent material on the subject of hog raising. An inquiry about hogs addressed to your state agricultural college will bring you information on what has been issued by your own state. Your county agent can supplement the printed advice by suggestions as to the adaptation of directions to your local conditions.

Some of the hog raising publications of the United States department of agriculture are listed below:

"Swine Management," Farmers' Bulletin 874; "Breeds of Swine," Farmers' Bulletin 765, containing information on the various breeds, their origin, general appearance, development and adaptability; "Pig Clubs and the Swine Industry," describing the pig club work; "Movable Hog Houses," Secretary's Circular 102; "Hog Houses," Farmers' Bulletin 438; "The Self-Feeder for Hogs," Farmers' Bulletin 906; "Hog Cholera; Prevention and Treatment," Farmers' Bulletin 874; "Tuberculosis of Hogs," Farmers' Bulletin 781.

Don't forget that the meat line is of direct importance to the battle line.

CATTLE AFTER WAR

The United States at present probably has more purebred cattle of beef and dairy types than is possessed by any other nation or combination of nations, according to the department of agriculture. At the close of the war European countries will require the different types of purebred animals to rebuild their depleted herds.

Study of present and future world conditions leads to the conclusion that continental Europe will bid high for the dairy type, while Russia will require all types, especially the beef types. It seems certain that importing countries will require cattle free from disease.

Disease eradication in our cattle is therefore a matter of the highest importance not only for the benefit of our own consumers but to facilitate after-the-war trade.

Time to Start Sheep Raising.

Late summer or early fall is the most favorable time to make a start in sheep raising. Ewes may be procured more readily at this time, and when purchased may be kept on meadows, grain stubble fields, or late-sown forage crops to get them in good condition for breeding.

Experience with the ewes through fall and winter will also make a beginner more capable of attending to them at lambing time. It is seldom possible to buy any considerable number of bred ewes at reasonable prices.

The inexperienced sheep raiser should begin with grade ewes of the best class available and a purebred ram. The raising of purebred stock and the selling of breeding rams can best be undertaken by persons experienced in sheep raising.

Don't Wait on Hog Cholera.

Don't take a chance with a sick hog. Act quickly. Get a veterinarian or a trained man immediately. Only prompt action will stop hog-cholera losses. Every hog saved will help to win the war.

The time for argument about anti-hog-cholera serum is past, declare specialists of the United States department of agriculture. Figures prove that when administered efficiently and in time, hog-cholera serum will keep well hogs from taking the disease.

Quick action is imperative to get serum and a trained operator to treat the hogs.

Be a Weed Detective.

If the first appearance in this country of weeds, such as Russian thistle, field hawkweed, and Canada thistle, had been reported, much of the loss and trouble they are causing might have been prevented. It is important to report to federal or state authorities the appearance of new weeds and to take precautions to prevent their spread.

Fighting the Sheep-Killer.

Five states during 1917 enacted improved legislation to protect sheep from dogs, and similar action is being considered in other states. Protection of this kind means more mutton and wool.

Feed for Young Calf.

When the calf is two weeks old a little mill feed may be added to the milk. This quantity may be gradually increased.

Best Base for Separator.

A concrete base for the separator is a good thing, but between it and the base of the machine, bolt down a board to provide elasticity.

For persons who put mutton first, the Southdown is the best breed.

HARVESTING SOY BEANS IN SOUTH

Mechanical Seed Pickers Now Being Used Successfully in Many Localities.

NEW MACHINES ARE BIG AID

Growers In Many Districts Now Consider It No More Trouble to Gather Crop Than Oats or Wheat—Time for Work.

(Prepared by the United States Department of Agriculture.)

The difficulty soy bean growers have experienced in harvesting their crop has been the greatest handicap in increased production, but the development of new machines and accumulated experience with the crop have overcome most of the troubles previously experienced. Growers in many districts now consider it little if any more trouble to harvest soy beans except for hay than it is to harvest oats or wheat.

Harvesting soy beans for hay is practically the same process as harvesting cowpeas for hay. Any difference is in favor of the soy beans, for the vines grow more erect and do not become tangled like cow peas. Soy bean hay is usually made by cutting when the pods are half filled and partially curing in the swath before raking. Sometimes a tedder is used for curing, but not often. After the soy beans are raked into a windrow they may be hauled directly to the stack or barn, but the usual custom is to shock them on hollow racks made of poles. When the soy beans are shocked on these racks there is a hollow space on the inside which allows a passage of the air and causes more rapid and thorough curing. The hay is so thoroughly cured on these racks that it

Soy Beans Shocked on Racks—Hollow Space on Inside Insures Ventilation Essential for Proper Curing.

can be baled out of the shock, which frequently is done. The usual custom, however, is to store the hay loose in the barns.

Harvesting for Seed.

In harvesting soy beans for seed mechanical pickers are used quite extensively. These pickers are of different makes, but all have the same general principle. They run astride the rows and knock out the beans, leaving the stems, leaves, and hulls on the land. The machine is drawn by two mules and operated by two men. One man drives and another throws out the excess trash that accumulates in the back of the machine. The picker will hold from 4 to 6 bushels of beans. When it is full, the beans are emptied and handled in different ways. In one common method the beans are run through a half-inch mesh sieve to remove the coarse trash and then are sacked. One or two men handle the sieve. These men may be the same who operated the machine or they may be extra men. After this the beans are cleaned with a fanning mill.

Time for Harvesting.

Harvesting with a picker begins some time after the leaves of the plant have fallen. The time to begin is when the first pods pop open and throw out the beans. As the picker works best only when the beans are dry, the machine is not started in the morning until the dew is off, which is usually from 9 to 11 o'clock. When the day's work is once started, it is customary to continue work until nightfall without stopping for dinner. In the soy bean district picking usually begins about the last of October and lasts through approximately 10 days of good picking weather. If it rains, the maturing of the beans is checked and picking is resumed when the weather again becomes dry. A machine will pick from 3 to 6 acres per day.

Waste in Picking.

The waste of beans in picking usually varies from one-twentieth to one-fourth, and, as a rule, averages about one-eighth. If the plants are blown down or have long branches so the machine cannot handle them well, the waste may be more than this, or if the beans are left on the vines too late, so that many of them pop out, the wastage may be higher. Varieties of beans that begin fruiting some distance from the ground can be harvested with the least waste by a picker, and this is one advantage of the mammoth yellow soy bean. Hogs are usually turned in to clean up the waste beans, so that in fact there is a very little loss.

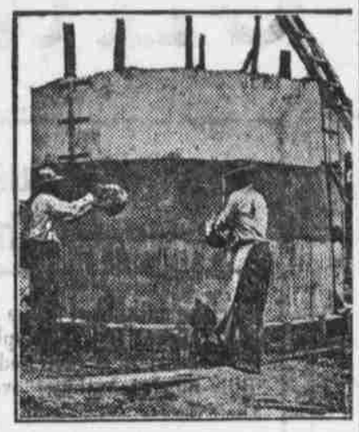
WASTE ELIMINATED BY MEANS OF SILO

Saving of $37.50 Per Acre on 50-Bushel Crop of Corn.

Farmers In Many Sections of Country Husk Crop In Field and Leave Stover—Contains One-Third of Food Nutrients.

(Prepared by the United States Department of Agriculture.)

By making as much silage as can be used stockmen will do much to conserve the feed supply. At least 37 per cent of the digestible material of the corn plant is left in the stover when the ears only are used. When corn is ensiled this 37 per cent goes into the silo with the 63 per cent in the ear. The importance of this saving will be more apparent when given a money value. With a yield of 50 bushels an acre, the value of grain is $75, at $1.50 a bushel. Since the stover contains



Concrete Silo in Course of Construction.

more than one-third of the food nutrients it is worth at least one-half as much as the grain, or $37.50. How many farmers will willingly leave in the field $37.50 an acre? Yet this is done in many sections of the country where the corn is husked and the stover left in the field.

But suppose the dry stover is fed as roughage. Even then it is not well saved as completely as in silage. When, under ordinary farm conditions, corn is cured in the shock the loss of dry matter is approximately 25 per cent and may be as high as 45 per cent. These losses are due to the breaking off of leaves by the wind and in handling, and to destructive fermentations. The loss of dry matter in the silo is very slight when the silo is tight and the silage well packed at the time of filling. As silage the cornstalk is all consumed, but as stover only the leaves are eaten unless it is shredded, and even then a great part of the stalk is discarded. Some feeding experiments show that even in shredded stover the portion discarded is as high as 31 per cent. This is in addition to the loss of dry matter during the curing process.

Too frequently an unfavorable season like last year results in the loss of the whole corn plant or in immature soft corn that is of little value. By far the best method to utilize corn which is immature at harvesting time is to put it into the silo. Even frosted corn will make satisfactory silage if harvested at once. If it becomes dry, it may be saved by adding water during the filling process.

GOVERNMENT AND LABOR

(Prepared by the United States Department of Agriculture.)

No department of government has any authority under the law to seize labor nor can the government create labor. The best we can do is to study each situation and to furnish information and every possible assistance in shifting labor from one neighborhood or region to another, and if that is not possible in a given case to call upon the towns and cities dependent upon agriculture to mobilize all town men of farm experience for aid to farmers, if need be, by substituting women in stores and shops in order to relieve the temporary emergency.—Clarence Ousley, Assistant Secretary of Agriculture.

GARDEN TOOLS NOT COSTLY

Large and Expensive Assortment Not Necessary In Home Garden—Three Indispensable.

(Prepared by the United States Department of Agriculture.)

In order to have a home vegetable garden it is not necessary to acquire a large or expensive assortment of tools. A spade, hoe and rake are the only tools that are indispensable. A garden line can be improvised from pieces of twine, and two sharpened sticks will serve as stakes. A trowel can be fashioned from a piece of thin board or from a shingle, while a serviceable scratcher or weeder can be made by driving three slender nails through the end of a piece of lath. Another kind of good weeder can be made from a piece of hoop iron bent into a loop and one edge sharpened.

A wheel hoe, or combination wheel hoe and seed drill, is a splendid tool, and there are a number of small hand tools that are useful in the garden, but these are not essential.

Develop Milk Capacity.

The capacity to give milk is developed in cows by breeding early.

RIGHT HANDLING SAVES HAY CROP

Proper Time of Cutting and Raking Are Important Factors in Harvesting.

BEST TIME OF DAY TO MOW

With Small Acreage It Is Customary to Wait Until Dew Is Off—Grower Should Inform Himself by Making Experiments.

(Prepared by the United States Department of Agriculture.)

There is considerable difference of opinion among hay growers as to the best time of day to mow hay. Some never cut hay when the grass is wet, others start mowing at any time, and some mow in the afternoon only.

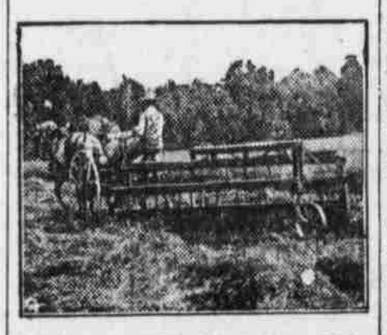
When considerable hay is grown it is necessary to keep the mowers going most of the day. Some growers of alfalfa in the South and East mow hay even when a light rain is falling, because unfavorable weather makes it impossible to get the crop in time if the mowing is all done in good weather.

When the acreage grown is small, it is customary to wait until the dew is off or to cut only in the afternoon. While this practice is desirable in some cases, in others it is merely wasting valuable time and it should be followed with careful judgment. In other words, the hay grower should inform himself by experiments or by the experience of his neighbors as to the earliest possible time in the morning after a heavy dew at which it is safe to start mowing under different conditions, considering the amount of moisture contained in the upper surface of the soil, whether the yield is light or heavy, the weather, and whether or not a tedder is to be used. All possible loss of valuable time, such as is entailed by having hired help idle or employed at work which is less profitable and necessary than making hay, should be avoided.

It is important to know how much hay to have down at one time. It is not good practice to have two or three times as much hay cut down as can be hauled or taken in in one day. Loss of quality can be avoided somewhat by having the mowers only one day ahead of the crew hauling; then if a rain comes up a minimum amount of hay will be damaged.

Tedding.

The best way to cure out freshly cut hay is to stir up the swath with a tedder before the top leaves dry out.



Raking Hay With Side-Delivery Rake —This Should Be Done Before Leaves Become Dry Enough to Shatter When Raked.

When the leaves lose their moisture and become dry before the moisture from the stem is removed, the process of curing is very much retarded. The tedder is especially valuable in curing alfalfa and clover hay, or heavy yields of any kind. No set rule can be given for using the tedder, but it should follow the mower from two to six or more hours later, depending upon yield, kind of hay, velocity of the wind, temperature, clouds, etc. The function of the tedder is to kick up the hay and allow it to cure out evenly. The tedder does more damage than good by breaking off the leaves, if used after the leaves have become dry. It is used on hay in the swath, seldom on hay in the windrow.

To induce rapid curing, it is the custom of some hay growers to ted the hay twice the same day.

Raking.

The practice of raking hay into windrows with either a sulky (dump) or side-delivery rake is almost universal. The exceptions are where the hay is loaded on the wagon directly from the swath by means of a hay loader, or is gathered from the swath with a sweep rake. These practices are rare, being followed usually only when the yield is heavy.

It is safe to say that most hay is cured almost entirely in the swath; indeed it is a common practice to commence hauling or stacking hay immediately after it is raked. Under certain conditions this practice is allowable. When the yield is light, or when a heavy yield is stirred several times with the tedder, and especially if the day is cloudy and there is a good breeze stirring, hay can be entirely cured in the swath and a good quality made.

During hot, dry, sunshiny weather in the middle of the summer, however, this practice of curing in the swath will not produce the best grade of hay. Under such conditions hay, especially clover and alfalfa, should be raked into the windrow just after it is all well wilted and before the leaves become dry enough to break off when raked.

After being raked, the hay may be left in the windrow until it is ready to be moved, or it may be put into cocks and left until thoroughly cured.

TRACTOR GAINING IN POPULARITY IN WEST

Machine Reported Profitable by Owners in Corn Belt.

Principal Advantage Reported Is Ability to Do Heavy Work Quickly—Saving of Man Power Also of Importance.

(Prepared by the United States Department of Agriculture.)

Evidence of the growing popularity of tractors on corn-belt farms is shown by reports made by more than 60 tractor owners, nine out of every ten reporting that their investment in a tractor had proved profitable. These data were obtained in the summer and fall of 1917, and in the spring of 1918 on representative Illinois farms by specialists of the United States department of agriculture, in order to determine just what conditions justified the purchase of a tractor in that section. Experienced tractor owners who made reports stated that tractors will prove profitable on most corn-belt farms of 180 acres or more, while in their opinion they should not be expected to do so on farms of much less than 180 acres. The report of the investigators, published as Farmers' Bulletin 963, states that while the figures were obtained in only one state, they are applicable throughout the corn belt and that the prospective tractor purchaser may reasonably count upon equaling the average performances reported in the study.

Nearly three-fourths (71 per cent) of those who reported owned tractors capable of pulling three plows. Eleven per cent recommended two-

Plowing Not Difficult Task for Farm Tractor.

plow machines, while 18 per cent advocated the use of four plows. In answer to the question "What do you find to be the principal advantages of a tractor for farm work?" the answer indicates that its ability to do heavy work and do it quickly, thus covering the desired acreage within the proper season, was considered the principal advantage. The saving of man power and the doing away with hired help, enabling a man to farm a larger acreage and thus increase the crops he can raise, was next in importance. The ability to plow to a good depth, especially in hot weather, was also emphasized.

Under disadvantages the difficulty of efficient operation was the principal point, and this fact should be kept in mind by everyone who considers the purchase of a tractor, says the bulletin. In this connection it suggests that tractor owners take a course of training under competent instructors in this line, as the results of such a course usually amply justify the time and expense involved. Packing of the ground when damp was mentioned by several owners as a disadvantage, but not as frequently as was the case when more of the older and heavier machines were in use. The expense, delays, and inability to use the tractor for some kinds of work for which horses could be used were disadvantages mentioned by several owners.

WORK IN OLD CLOTHES

(Prepared by the United States Department of Agriculture.)

The idea of furnishing a uniform for industrial workers, while it appeals very greatly to sentiment, appears to be altogether impracticable. Farm labor does not suggest a uniform. For the most part, farm labor is done in shirt sleeves and overalls, and such town people as may be induced to do farm labor will find it more economical and convenient to use their old clothes.—Clarence Ousley, Assistant Secretary of Agriculture.

GET FERTILIZER ORDERS IN

Essential That Dealers and Manufacturers Know Needs of Farmers Soon as Possible.

(Prepared by the United States Department of Agriculture.)

It is important that farmers who expect to use fertilizers on their wheat this fall place their orders early so dealers and manufacturers know farmers' needs as soon as possible, so that orders can be combined and car space used to the best advantage. Transportation difficulties require that freight cars be loaded to their rated capacity. Delay in ordering, it is said, may result in a repetition of last spring's experience when many farmers failed to receive their mixed fertilizer and acid phosphate until after planting time.

Winter Vetch Valuable.

Winter vetch is especially valuable for building up poor soils.